

* SWBAT apply work, power, and energy as needed

Sep 6-2:31 PM

Welcome!!!

SECA Physics
Thursday 4 December 2014

* Pick up:

- slip of paper (for later)

H. Leslie Grebe

Opening Questions:

POWER

What do we measure with Watts? with Joules?

WORK ENERGY



Algebra extra credit: (index card with name)

$$PE = mgh$$

$$KE = (1/2)mv^2$$

If an object starts at a certain height and then all the PE is converted to KE, how fast will it be going (what is "v")?

Centering...

Sep 7-7:04 AM

Catchy Physics Phrases

Work IS WHEN A FORCE CAUSES A DISPLACEMENT.

JOULES

Energy IS THE ABILITY TO DO WORK

JOULES

Power IS WORK OVER TIME

WATTS

Dec 5-7:14 AM

$$PE = mgh$$

$$KE = (1/2)mv^2$$

If an object starts at a certain height and all the PE is converted to KE, how fast will it be going (what is "v")?

$$2 \cdot mgh = \frac{1}{2}mv^2 \cdot 2 \cdot 5m$$

$$\frac{2mgh}{m} = \frac{mv^2}{m}$$

$$\sqrt{2gh} = \sqrt{v^2}$$

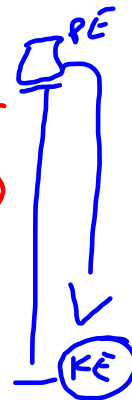
$$h = 5m$$

$$v = \sqrt{2 \cdot g \cdot h}$$

$$v = \sqrt{2 \cdot (10 \text{ m/s}^2) \cdot 5m}$$

$h = 5m$
Worksheet

$$v = 10 \text{ m/s}$$



Dec 6-7:08 AM

Daily 3 Questions

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

| Name | Period |
|------|--------|
| 1. | |
| 2. | |
| 3. | |

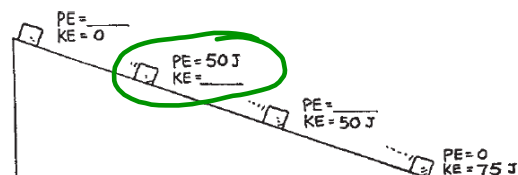
Sep 9-7:32 AM

1. What is the **power** output of an engine that does 60,000 J of work in 10 seconds?

$$P = \frac{W}{t} = \frac{60,000 \text{ J}}{10 \text{ s}} = 6000 \text{ W}$$

2. What value goes in the circle?

25 J



3. What is measured in Watts?

A. Work
B. Energy
C. Power

Dec 2-7:55 AM